

SPACE POLICY & LAW COURSE

11 TO 13 OCTOBER 2021

ON-LINE**MONDAY 11 OCTOBER 2021**

1. SPACE ENVIRONMENT AND TECHNOLOGY - 09.15 - 10.30*

- Delimitation of Space and Airspace
- Environmental characteristics
- Orbits, types of spacecraft, mega-constellations
- Discussion and questions

BREAK - 10.30 - 10.40

2. POLICY FORMULATION AND INSTITUTIONS - 10.40 – 12.00

- Policy Principles, Peaceful Use, Non-appropriation, Cooperation and Non-interference
- Policy development and institutions
- International and National Institutions - nature and role
- UN COPUOS, ESA, Regional Organisations and operating methods
- National Policies, formulation and implementation
- Discussion and questions

LUNCH - 12.00 - 12.45

3. THE LEGAL REGIME - 12.45 – 14.00

- Sources of Space Law, Outer Space Treaties, UN Resolutions
- Other regimes - Antarctic, Law of the Sea and Air Law
- International Responsibility and Liability distinguished
- National space laws and Licensing
- Norms, Practices, Guidelines, Regulations and Standards
- Discussion and questions

BREAK - 14.00 - 14.10

4. THE LAWS GOVERNING SPACE APPLICATIONS - 14.10- 15.30

- Sovereignty, Property Rights
- Remote Sensing: UN Principles and Disaster Charter
- Earth Observation: Data and Information
- Scientific experiment, Exploration and Exploitation
- Manned space activities: The ISS & its IGA; Chinese Space Station
- Discussion and questions

BREAK - 15.30 - 15.40

*** Times given are GMT+1 (London time) and need to be corrected for your local time zone.**

5. SATELLITE COMMUNICATIONS - 15.40 – 16.50

- Telecommunications and Broadcasting: The Role of the ITU
- Orbital Positions, Co-ordination
- Spectrum management: Frequency Efficiency and Market Reach
- Harmful interference, jamming, signal interception, cyber security, frequency priority, EU and the ITU
- Discussion and questions

TUESDAY 12 OCTOBER 2021

6. COMMERCIAL SPACE ACTIVITIES - 09.15 – 10.30

- Nature and range of commercial space ventures
- PNT Applications and Services
- Spaceflight and Spaceports
- Small Satellite Constellations, On-orbit Servicing
- Regulation, Market Access
- Discussion and questions

BREAK - 10.30 - 10.40

7. RISK, LIABILITY AND INSURANCE - 10.40 – 12.00

- Laws Governing Liability (Risk and Fault)
- Liability for Debris and Obligation not to Create
- Active Debris Removal - Remediation vs Mitigation
- Insurance
- Discussion and questions

LUNCH - 12.00 - 12.45

8. CURRENT AND FUTURE DEVELOPMENTS - 12.45 – 14.00

- Constellations, Small Satellites
- Focus on Applications
- Extra-terrestrial habitation
- Artemis Accords
- Discussion and questions

BREAK - 14.00 - 14.10

9. CURRENT AND FUTURE DEVELOPMENTS - 14.10 – 15.10

- EU and ESA Relationship
- UK ESA and EU Relationship
- Space Powers Mid-century, US, China, Russia, India, Japan, EU
- Discussion and questions

BREAK - 15.10 - 15.20

10. MILITARY USES AND SECURITY - 15.20 – 16.30

- Military support functions and Space Weapons
- Space a "war-fighting" domain
- Role of Cyber, Drones and Robotics
- Environmental and humanitarian factors
- Small Satellite Constellations potential and risks
- Discussion and questions

WEDNESDAY 13 OCTOBER 2021

11. SPACE HAZARDS AND SAFETY - 09.15 – 10.30

- Space hazards - Man made and natural: Meteorites, Debris
- Space Situational Awareness and Space Traffic Management
- Space Weather
- Discussion and questions

BREAK - 10.30 - 10.40

12. SPACE HAZARDS AND SAFETY - 10.40 – 12.00

- Debris Reduction and Elimination Measures
- Responsible Behaviour, Transparency and Confidence Building Measures
- Terrestrial environmental impact
- Discussion and questions

LUNCH - 12.00 - 12.45

13. CASE STUDIES - 12.45 – 13.45

- Recovery and Return
- Debris (liability, sovereignty, space situational awareness and other concepts)
- Mining (Commercial & State participation, property rights, potential pollution from space, appropriation and the issue of territory vs. resources, and other concepts)
- Active Debris Removal

14. REVIEW & CONCLUSION - 13.45 – 15.00

- Course Summary, Discussion and conclusion

LECTURERS

CB	Dr Christoph Beischl, ISPL Research Fellow
RC	Prof Richard Crowther, Chief Engineer, UK Space Agency; ISPL Faculty & Adviser
J-JD	Prof Jean-Jacques Dordain, CNES; past ESA Director-General; ISPL Faculty & Adviser
JE	Dr Jonathan Eastwood, Director, Space Lab, Imperial College London
JIG	Prof Joanne Irene Gabrynowicz, Emeritus Professor, Mississippi University; ISPL Faculty
JG	Prof Maj Jeremy Grunert, US Air Force Academy; Mississippi Univ. Air & Space Law Centre
YH	Yvon Henri, Former Chief, Space Services, ITU; Member, Radio Regulation Board, ITU
SM	Prof Sa'id Mosteshar, Barrister; Senior Associate Research Fellow, IALS; ISPL Director
LJS	Prof Lesley Jane Smith, Partner, Weber-Steinhaus & Smith; ISPL Faculty
AS	Alexander Soucek, Head, International Law Division, ESA
J-JT	Jean-Jacques Tortora, Director, European Space Policy Institute (ESPI)
IZ	Ilaria Zilioli, Legal Officer, ESA; ISPL Faculty

DISCUSSANTS

SA	Professor Setsuko Aoki, Faculty of Management, Keio University; ISPL Faculty
RK	Dr Ranjana Kaul, Partner, Dua Associates; ISPL Faculty
MR	Air Commodore (Ret'd) Mark Roberts, Defence & Security, RHEA Group; ISPL Faculty
OS	Oonagh Sands, , Senior Associate, Fietta Law
DS	Prof David Southwood, past Chairman, Steering Board, UK Space Agency; ISPL Board
MS	Prof Sir Martin Sweeting, Executive Chairman, Surrey Satellite Technology; ISPL Board
FT	Dr Fabio Tronchetti, Co-Director, Institute of Space Law and Strategy, Beihang University

The Discussants will join the discussion as the occasion arises.